



Form PTO-1449 (REV. 7-30) PATENT AND TRADEMARK OFFICE U.S. DEPARTMENT OF COMMERCE <b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>				Atty. Docket No. (Optional) 17106		Application Number 10/713,970		
<b>U.S. PATENT DOCUMENTS</b>								
EXAMINER INITIAL*		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (if appropriate)	
KG	1.	5,705,616	1/6/1998	Lehle et al.				
KG	2.	5,135,854	8/4/1992	MacKay et al.				
KG	3.	US-2002/0137134/A1	09-2002	Gerngross				
<b>FOREIGN PATENT DOCUMENTS</b>								
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
KG	4.	8-336387	12/24/1996	Japan				
KG	5.	WO 91/05057	4/18/1991	PCT				
KG	6.	EP 0 582 244 A2	2/9/1994	EPO				
KG	7.	WO 96/21038	7/11/1996	PCT				
KG	8.	EP 0 314 096	5/3/1989	EPO				
KG	9.	EP 1 211 310 A1	6/5/2002	EPO				
KG	10.	EP 0 548 012 A1	6/23/1993	EPO				
KG	11.	WO 02/00856 A2	1/3/2002	PCT				
KG	12.	WO 92/09694	6/11/1992	PCT				
KG	13.	WO 02/00879 A2	1/3/2002	PCT				
<b>OTHER DOCUMENTS</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>								
KG	14.	Maras, M., et al., "Molecular Cloning and Enzymatic Characterization of a <i>Trichoderma Reesei</i> , 1, 2 - $\alpha$ -D-Mannosidase", <u>Journal of Biotechnology</u> Vol., 77, No. 2-3, pp. 255-263 (2000)						
KG	15.	Bretthauer, R. K., et al., "Glycosylation of <i>Pichia pastoris</i> -derived Proteins", <u>Biotechnol. Appl Biochem.</u> Vol. 30, pp. 193-200 (1999)						
EXAMINER /Kagnew Gebreyesus/				DATE CONSIDERED 07/20/2006				
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KG	16.	Kukuruzinska, M. A., et al., "Protein Glycosylation in Yeast", <u>Ann. Rev. Biochem.</u> Vol. 56, pp. 915-944 (1987)					
KG	17.	Chiba, Y., et al., "Production of Human Compatible High Mannose-Type (Man <sub>5</sub> GlcNAc <sub>2</sub> ) Sugar Chains in <i>Saccharomyces Cerevisiae</i> ", <u>The Journal of Biological Chemistry</u> , Vol. 273, No. 41, pp. 26298-26304 (1998)					
KG	18.	Maras, M., et al., "In Vivo Synthesis of Complex N-Glycans by Expression of Human N-Acetylglucosaminyltransferase I in the Filamentous Fungus <i>Trichoderma Reesei</i> ", <u>FEBS Letters</u> , Vol. 452, pp. 365-370 (1999)					
KG	19.	Nakanishi-Shindo, Y., et al., "Structure of the N-Linked Oligosaccharides That Show the Complete Loss of $\alpha$ -1,6-Polymannose Outer Chain from <i>och1</i> , <i>och1 mnn1</i> , and <i>och1 mnn1 alg3</i> Mutants of <i>Saccharomyces Cerevisiae</i> ", <u>The Journal of Biological Chemistry</u> , Vol. 268, No. 35, pp. 26338-26345 (1993)					
KG	20.	Martinet, W., et al., "Modification of the Protein Glycosylation Pathway in the Methylophilic Yeast <i>Pichia Pastoris</i> ", <u>Biotechnology Letters</u> , Vol. 20, No. 12, pp. 1171-1177 (1998)					
KG	21.	Maras, M., et al., "In vitro Conversion of the Carbohydrate Moiety of Fungal Glycoproteins to Mammalian-Type Oligosaccharides", <u>Eur. J. Biochem.</u> , Vol. 249, pp. 701-707 (1997)					
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KG	22.	Laroy, W., et al., "Cloning of <i>Trypanosoma cruzi</i> trans-Sialidase and Expression in <i>Pichia pastoris</i> ", <u>Protein Expression and Purification</u> , Vol. 20, pp. 389-393 (2000)					
KG	23.	Inoue, T., et al., "Molecular Cloning and Nucleotide Sequence of the 1,2-a-D-Mannosidase Gene, <i>msdS</i> , from <i>Aspergillus Saitoi</i> and Expression of the Gene in Yeast Cells" <u>Biochimica et Biophysica Acta</u> , Vol. 1253, pp. 141-145 (1995)					
KG	24.	Herscovics, A., et al., "Isolation of a Mouse Golgi Mannosidase cDNA, a Member of a Gene Family Conserved from Yeast to Mammals", <u>The Journal of Biological Chemistry</u> , Vol. 269, No. 13, pp. 9864-9871 (1994)					
KG	25.	Lal, A., et al., "Isolation and Expression of Murine and Rabbit cDNAs Encoding an a1,2-Mannosidase Involved in the Processing of Asparagines-linked Oligosaccharides", <u>The Journal of Biological Chemistry</u> , Vol. 269, No. 13, pp. 9872-9881 (1994)					
KG	26.	Trombetta, E.S., et al., "Endoplasmic Reticulum Glucosidase II is Composed of a Catalytic Subunit, Conserved from Yeast to Mammals, and a Tightly Bound Noncatalytic HDEL-containing Subunit", <u>The Journal of Biological Chemistry</u> , Vol. 271, No. 44, pp. 27509-27516 (1996)					
KG	27.	Ngo, J.T., et al., "Computational Complexity, Protein Structure Prediction, and the Levinthal Paradox", <u>The Protein Folding Problem and Tertiary Structure Prediction</u> , pp. 491-495 (1994)					
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<b>OTHER DOCUMENTS</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>							
KG	28.	Rudinger, J., "Characteristics of the Amino Acids as Components of a Peptide Hormone Sequence", In: Peptide Hormones (Parsons, J.A., Ed.), University Park Press, Baltimore, pp. 1-7 (1976)					
KG	29.	<u>Invitrogen Catalog</u> , "Yeast Expression", p. 22. (1998)					
KG	30.	Cregg, J.M., et al., "High-Level Expression and Efficient Assembly of Hepatitis B Surface Antigen in the Methylophilic Yeast, <i>Pichia Pastoris</i> ", <u>Biotechnology</u> , Vol. 5, pp. 479-485 (1987)					
KG	31.	Lehle, L., et al., "Glycoprotein Biosynthesis in <i>Saccharomyces Cerevisiae</i> : <i>ngd29</i> , an N-glycosylation Mutant Allelic to <i>och1</i> having a Defect in the Initiation of Outer Chain Formation", <u>Federation of European Biochemical Societies</u> , Vol. 370, No. 1/2, pp. 41-45 (1995)					
KG	32.	Yoko-o, T., et al., " <i>Schizosaccharomyces Pombe och1+</i> Encodes aa-1,6-mannosyltransferase that is Involved in Outer Chain Elongation of N-linked Oligosaccharides", <u>Federation of European Biochemical Societies</u> , Vol. 489, No. 1, pp. 75-80 (2001)					
KG	33.	Lal, A., et al., "Substrate Specificities of Recombinant Murine Golgi $\alpha$ 1,2-mannosidases IA and IB and Comparison with Endoplasmic Reticulum and Golgi Processing $\alpha$ 1,2-mannosidases", <u>Glycobiology</u> , Vol. 8, No. 10, pp. 981-995 (1998)					
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KG	35.	Tremblay, L.O., et al., "Cloning and Expression of a Specific Human $\alpha$ 1,2-mannosidase that Trims Man <sub>6</sub> GlcNAc <sub>2</sub> to Man <sub>3</sub> GlcNAc <sub>2</sub> Isomer B During N-glycan Biosynthesis", <u>Glycobiology</u> , Vol. 9, No. 10, pp. 1073-1078 (1999)					
KG	36.	Gonzalez, D.S., et al., "Identification, Expression, and Characterization of a cDNA Encoding Human Endoplasmic Reticulum Mannosidase I, the Enzyme That Catalyzes the First Mannose Trimming Step in Mammalian Asn-linked Oligosaccharide Biosynthesis", <u>The Journal of Biological Chemistry</u> , Vol. 274, No. 30, pp. 21375-21386 (1999)					
KG	37.	Kniskern, P.J., et al., "Characterization and Evaluation of a Recombinant Hepatitis B Vaccine Expressed in Yeast Defective for N-linked Hyperglycosylation", <u>Vaccine</u> , Vol. 11, No. 12, pp. 1021-1025 (1994)					
KG	38.	Nakayama, K., et al., "OCH1 Encodes a Novel Membrane Bound Mannosyltransferase: Outer Chain Elongation of Asparagines-linked Oligosaccharides", <u>The EMBO Journal</u> , Vol. 11, No. 7, pp. 2511-2519 (1992)					
KG	39.	Callewaert, N., et al., "Use of HDEL-Tagged Trichoderm Reesei Mannosyl Oligosaccharide 1,2- $\alpha$ -D-Mannosidase for N-Glycan Engineering in Pichia Pastoris", <u>FEBS Letters</u> , Vol. 503, No. 2-3, pp. 173-178 (2001)					
KG	40.	Chen, X., et al., "Carbohydrates in Transplantation", <u>Current Opinion in Chemical Biology</u> , pp. 650-658 (1999)					
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KG	41.	Choi, B.K., et al., "Use of Combinatorial Genetic Libraries to Humanize N-linked Glycosylation in the Yeast <i>Pichia Pastoris</i> ", <u>Proceedings of the National Academy of Sciences of the United States</u> , Vol. 100, No. 9, pp. 5022-5027 (2003)						
KG	42.	Hamilton, S.R., et al., "Production of Complex Human Glycoproteins in Yeast", <u>Science</u> , Vol. 301, No. 5637, pp. 1244-1246 (2003)						
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KG		6,803,225 B2	10/12/2004	Contreras et al.				
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